

# C U SHAH UNIVERSITY

## WADHWAN CITY

Subject Code: 4TE04IEN1

Date:

Subject Name: Industrial Engineering.

Course: B. Tech (Mech)

Semester: IV

Time:

Total Marks: 70

Instructions:

1. Make suitable assumptions whenever necessary.
2. Figures to the right indicate full marks.
3. All questions are compulsory.

### Section - I

- Q-1 (a) Define Industrial Estate. 02
- (b) List down the steps in work study. 02
- (c) What is product development? 03

- Q-2 (a) What is SEZ? Explain SEZ in India. 05
- (b) How Assignments techniques are used for plant layout? 05
- (c) Discuss the MRP system. 04

OR

- Q-2 (a) Discuss dynamic nature of plant location. 05
- (b) What is assembly line balancing? Explain with example. 05
- (c) Explain the following with neat sketch: i) String diagram ii) Flow diagram. 04

- Q-3 (a) Discuss different methods of sales forecasting. 07
- (b) What is method study? What are the types of job in which method study can be applied? 07

OR

- Q-3 (a) Explain Ergonomics and its applications. 07
- (b) What is the difference between an operation process chart and an outline process chart? 07

### Section -II

- Q-4 (a) Define job analysis. 02
- (b) Explain factory. 02
- (c) List the characteristics of an entrepreneur. 03

- Q-5 (a) The standard time for a particular job is fixed as 8 hours. The hourly wage rate is Rs. 2.5. Calculate the daily earning of a worker under Bedaux plan, if i) he takes 7 hours to complete the job ii) he takes 8 hours to complete the job. 05
- (b) Explain need of industrial legislation. 05
- (c) Explain Lot Tolerance Percent Defective (LTPD). 04

OR

- Q-5 (a) A management sets a target of completing 72 jobs for each worker. The workers are promised to pay incentive according to Halsey 50-50 plan. The hourly wage rate is Rs 1.00. A worker however could complete the whole task in 6 hours only. Calculate the total earnings and hourly wage rate of a worker. 05
- (b) Explain employees provident fund act, 1952. 05
- (c) Explain average outgoing quality. 04

- Q-6 (a) Explain operating characteristic curves with neat sketch. 07
- (b) What are different contents of a good project report? 07

OR

- Q-6 (a) What do you mean by process capability? How it is measuring? 07
- (b) Explain the terms: i) Technical feasibility ii) Financial viability. 07